

access memory (RAM), static RAM (SRAM), dynamic RAM (DRAM), read-only memory (ROM), programmable read-only memory (PROM), erasable programmable read-only memory (EPROM), electrically erasable programmable read-only memory (EEPROM), flash EPROM (FLASHEPROM), cache memory (L1/L2/L3/L4/L5/L6), resistive random-access memory (RRAM/ReRAM), phase change memory (PCM), spin transfer torque RAM (STT-RAM), another memory chip or cartridge, or a combination thereof.

[0095] Various forms of transmission media may be involved in carrying one or more sequences of one or more instructions to a processor 610 for execution. A bus 690 carries the data to system RAM or another memory 620, from which a processor 610 retrieves and executes the instructions. The instructions received by system RAM or another memory 620 can optionally be stored on a fixed disk (mass storage device 630/portable storage 640) either before or after execution by processor 610. Various forms of storage may likewise be implemented as well as the necessary network interfaces and network topologies to implement the same.

[0096] While various flow diagrams provided and described above may show a particular order of operations performed by some embodiments of the subject technology, it should be understood that such order is exemplary. Alternative embodiments may perform the operations in a different order, combine certain operations, overlap certain operations, or some combination thereof.

[0097] The foregoing detailed description of the technology has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the technology to the precise form disclosed. Many modifications and variations are possible in light of the above teaching. The described embodiments were chosen in order to best explain the principles of the technology, its practical application, and to enable others skilled in the art to utilize the technology in various embodiments and with various modifications as are suited to the particular use contemplated. It is intended that the scope of the technology be defined by the claim.

What is claimed is:

1. A method for automatically switching roles between different devices during gameplay of a video game, the method comprising:

- generating a shared virtual environment associated with the video game;
- assigning a first client device a player role within the video game, the player role associated with control over an aspect of the shared virtual environment;
- streaming game data corresponding to the shared virtual environment to the first client device at a first latency in response to identifying that the first client device has the player role;
- assigning a second client device a spectator role within the video game, the spectator role associated with a lack of control over the aspect of the shared virtual environment;
- streaming the game data corresponding to the shared virtual environment to the first client device at a second latency in response to identifying that the first client device has the player role;
- identifying that a trigger event has occurred;

- switching the first client device from the player role to the spectator role within the video game automatically in response to identifying that the trigger event has occurred;

- streaming the game data corresponding to the shared virtual environment to the first client device at a third latency in response to switching the first client device to the spectator role, wherein the third latency is higher than the first latency;

- switching the second client device from the spectator role to the player role within the video game automatically in response to identifying that the trigger event has occurred; and

- streaming the game data corresponding to the shared virtual environment to the second client device at a fourth latency in response to switching the second client device to the player role, wherein the fourth latency is lower than the second latency.

2. The method of claim 1, wherein the second latency is higher than the first latency.

3. The method of claim 1, further comprising:

- receiving a first control input from the first client device in response to identifying that the first client device has the player role;

- modifying the shared virtual environment based on the first control input;

- receiving a second control input from the second client device in response to switching the second client device to the player role; and

- modifying the shared virtual environment based on the second control input.

4. The method of claim 1, wherein the aspect of the shared virtual environment comprises one or more character avatars within the shared virtual environment.

5. A method for automatically switching roles between different devices during gameplay of a video game, the method comprising:

- identifying that a client device is assigned a spectator role within the video game, the spectator role associated with a lack of control over an aspect of a shared virtual environment associated with the video game;

- streaming game data corresponding to the shared virtual environment at a first latency to the client device;

- identifying that a trigger event has occurred;

- switching the client device from the spectator role to a player role within the video game automatically in response to identifying that the trigger event has occurred, the player role associated with control over the aspect of the shared virtual environment; and

- streaming game data corresponding to the shared virtual environment at a second latency to the client device automatically in response to switching the client device to the player role, wherein the second latency is lower than the first latency.

6. The method of claim 5, further comprising:

- receiving a control input from the client device in response to switching the client device from the spectator role to the player role; and

- modifying the shared virtual environment based on the control input.

7. The method of claim 6, wherein modifying the shared virtual environment based on the control input includes causing an avatar representing the player to move within the shared virtual environment.